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# **COSTS** and **RETURNS**

CURRENT SERIAL RECORDS



**Commercial  
Dairy  
Farms**

**Northeast and  
Midwest**

1965

## FARM COSTS STUDIES

This report is part of a continuing nationwide study of costs and returns on commercial farms and ranches by type and size in some of the important farming regions of the United States. The study is conducted under the general supervision of Wylie D. Goodsell, Farm Production Economics Division, Economic Research Service. Objectives, methodology, procedure, and terms are uniform for all areas covered in the study.

The 1965 costs and returns studies have been conducted on the following:

Dairy Farms, Northeast and Midwest  
Corn Belt Farms  
Egg-Producing Farms, New Jersey  
Broiler Farms, Maine, Delmarva, and Georgia  
Cotton Farms  
Tobacco Farms, Coastal Plain, North Carolina  
Tobacco-Livestock Farms, Bluegrass Area, Kentucky  
Wheat Farms, Plains and Pacific Northwest  
Western Livestock Ranches

Summary statistics for all types of farms in the study are presented in a report, revised annually. The latest such report was published in 1965 and is titled: "Farm Costs and Returns, Commercial Farms, by Type, Size, and Location," Agriculture Information Bulletin No. 230, Revised 1965.

Information on the studies can be obtained from Farm Production Economics Division, Economic Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

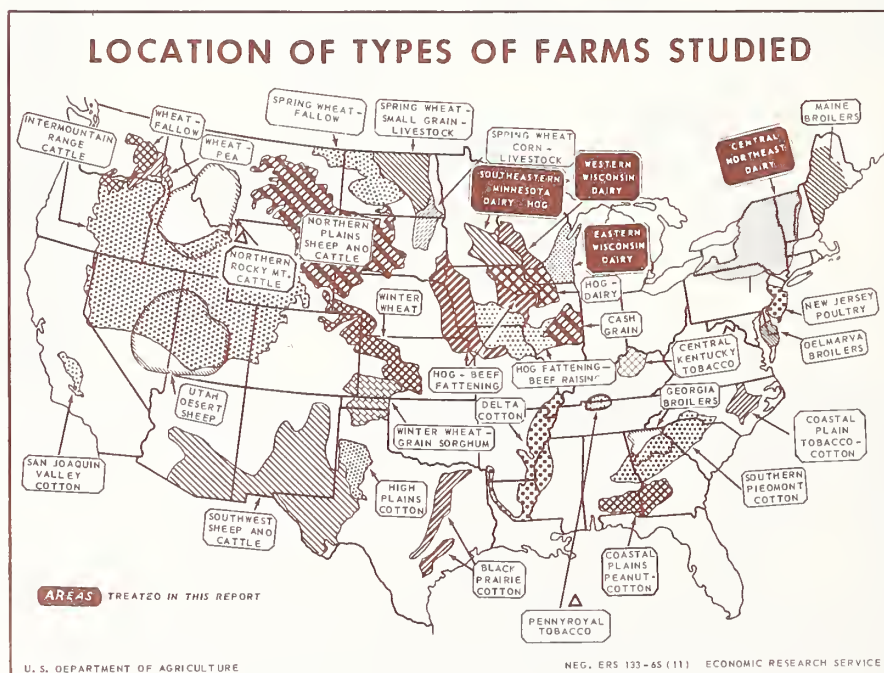


Figure 1

# COSTS AND RETURNS COMMERCIAL DAIRY FARMS NORTHEAST AND MIDWEST, 1965

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## SUMMARY

Typical dairy farms in the Central Northeastern and Midwestern dairy areas as shown in figure 1 had estimated net farm incomes in 1963, 1964, and 1965 as follows:

	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>Percentage change</u>	
				<u>1963 to 1964</u>	<u>1964 to 1965</u>
Central Northeast.....	\$4,101	\$4,264	\$4,271	4	0
Eastern Wisconsin, grade A.....	6,005	6,731	6,265	12	-7
Eastern Wisconsin, grade B.....	3,257	3,493	3,218	7	-8
Western Wisconsin, grade B.....	4,831	2,939	4,635	-39	58
Southeastern Minnesota, dairy-hog..	4,545	3,815	5,116	-16	34

Net farm incomes in 1965 in the Central Northeast were about the same as in 1964. They were somewhat lower in 1965 in eastern Wisconsin but they were much higher in western Wisconsin and southeastern Minnesota where incomes were low in 1964 because of drought (fig. 2). Although milk production on farms in the Central Northeast increased at about the same rate as in recent years, it increased very little on Wisconsin farms and declined in southeastern Minnesota (table 1). These changes in the Midwest resulted from an increased rate of culling dairy cows and a decline in production per cow the last 4 months of the year. Pasture conditions in the spring and early summer of 1965 were poor in all areas. They im-

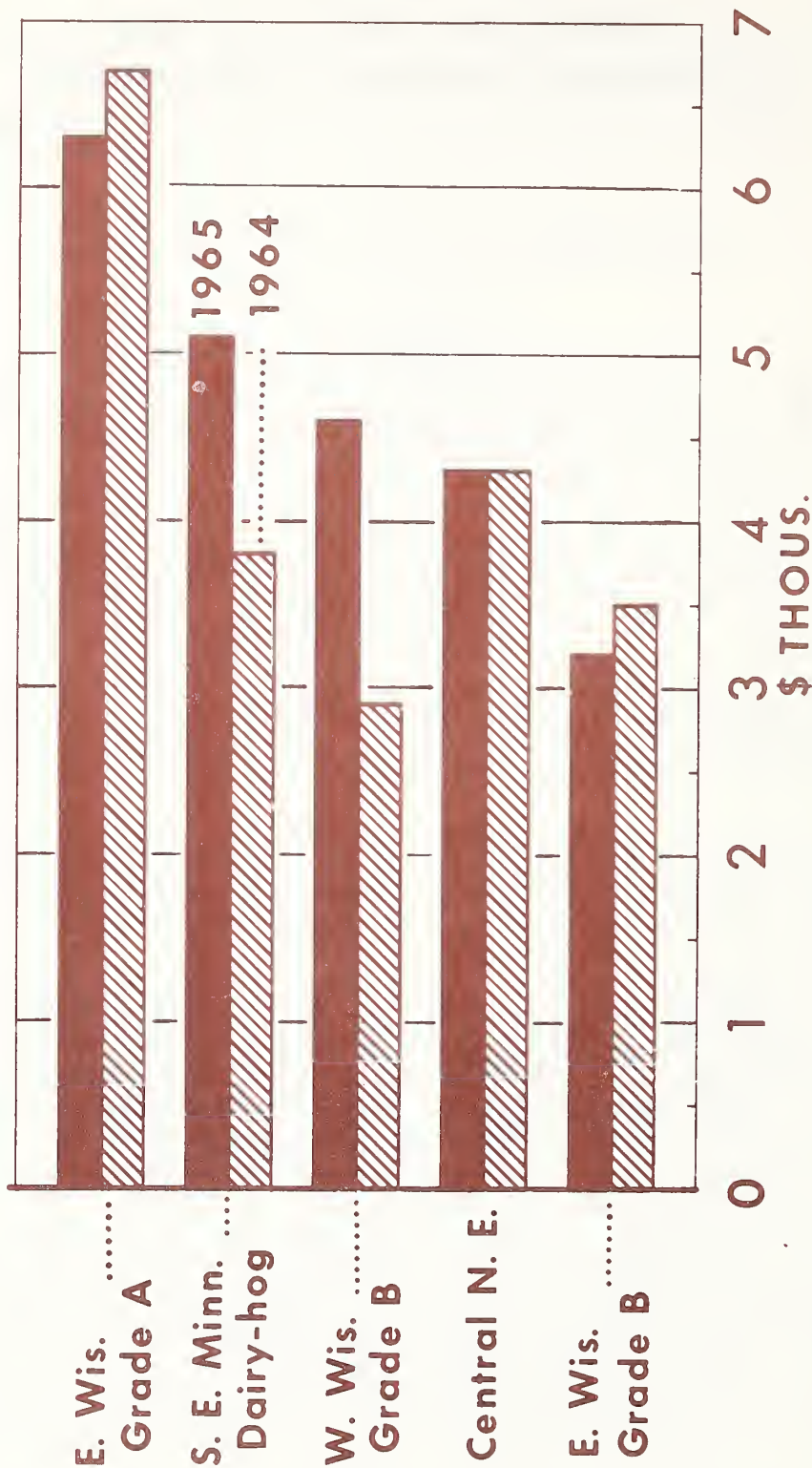
proved later in the season, but an unusually wet September in the Midwest reduced the quality of roughage and output per cow.

The quantity of concentrates fed per 100 pounds of milk produced in 1965 was higher than in 1964 in all areas. It ranged from almost 11 percent higher in the Central Northeast to about 3 percent higher in southeastern Minnesota. Prices received in 1965 for products sold on farms in the Central Northeast and on grade A farms in eastern Wisconsin increased by about 2 percent, corresponding to a like increase in milk prices in these fluid milk areas. They increased more in manufacturing milk areas where milk prices rose about 3 percent. In the latter areas



# NET FARM INCOME

## Commercial Dairy Farms



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Figure 2

Table 1.- Organization and production, commercial dairy farms, specified locations, 1964 and 1965

Item	Unit	Central Northeast dairy		Eastern Wisconsin dairy				Western Wisconsin dairy, Grade B		Southeastern Minnesota dairy-hog	
				Grade A		Grade B					
		1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>
Land in farm.....	Acre	243	247	180	184	149	152	192	196	179	183
Cropland harvested.....	do.	90	91	122	125	90	92	92	95	109	112
Crops harvested:											
Corn for grain.....	do.	---	---	24.6	25.9	14.6	15.4	13.4	18.9	37.2	39.5
Corn for silage.....	do.	12.9	14.2	19.0	20.1	11.2	12.0	15.5	10.6	12.7	12.7
Small grains.....	do.	13.1	11.8	27.0	26.5	25.5	25.0	22.4	23.3	26.4	25.7
Hay.....	do.	63.5	65.0	44.7	45.6	37.4	38.5	40.4	41.6	33.1	34.6
Crop yields per harvested acre:											
Corn for grain.....	Bushel	---	---	80.9	78.1	72.5	70.0	49.8	74.7	56.3	64.2
Corn for silage.....	Ton	11.3	11.9	12.0	11.3	10.6	10.0	6.9	11.9	8.2	9.9
Oats.....	Bushel	54.0	56.0	56.8	63.0	52.4	58.2	45.0	61.2	48.7	54.5
Hay.....	Ton	1.7	1.7	2.7	2.4	2.2	2.0	1.9	2.3	2.6	2.9
Cattle on farm, Jan. 1:											
All cattle.....	Number	48.0	48.9	56.1	57.0	35.0	35.3	44.7	45.1	38.4	39.1
Cows and heifers, 2 years old and over.....	do.	33.0	33.5	33.3	34.2	22.1	22.4	24.8	25.4	22.2	22.6
Milk production per cow.....	Pound	9,270	9,550	10,710	10,840	9,120	9,240	8,810	8,910	9,060	8,940
Total farm capital, Jan. 1.....	Dollar	45,500	47,900	72,010	75,470	47,980	50,800	38,770	39,140	57,600	61,050
Land and buildings.....	do.	25,100	27,200	41,580	43,970	30,690	32,530	22,120	23,170	39,490	42,520
Machinery and equipment.....	do.	8,200	8,600	12,880	13,530	6,480	6,710	4,390	4,570	7,550	7,770
Livestock.....	do.	9,200	9,200	11,360	11,460	6,020	6,030	7,280	7,300	6,620	6,250
Crops.....	do.	3,000	2,900	6,190	6,510	4,790	5,530	4,980	4,100	3,940	4,510
Total labor used.....	Hour	4,610	4,630	4,750	4,700	3,880	3,850	4,380	4,360	4,240	4,180
Hired.....	do.	4,610	4,630	4,480	4,470	90	90	290	290	330	320

<sup>1</sup> Preliminary.

the effect of higher hog prices raised the increase in prices received still higher, ranging up to 8 percent higher in southeastern Minnesota. Prices paid for inputs in 1965 were also slightly higher than in 1964.

### Central Northeast

Net farm income on typical dairy farms in the Central Northeast averaged \$4,271 per farm in 1965, about the same as in 1964, as a 7-percent increase in gross farm income was offset by a 10-percent increase in operating expenses (table 2).

Production of milk per cow continued to increase at nearly the same rate in 1965--about 3 percent--as in recent years, but the rate of increase in number of cows milked diminished. As a result, production of milk per farm increased at a somewhat smaller rate than in 1964. Crop production in 1965 continued at the level of the last 4 years, which was considerably lower than in 1961. Pasture conditions were poorer in 1965 than in 1964 in the spring and early summer but they improved in August. They were much better in the fall of 1965 than at the same time during 1964.

The higher operating expenses in 1965 than in 1964 largely reflected greater quantities of concentrates purchased at somewhat higher prices. Operating expenses per unit of production increased nearly 6 percent from 1964 and were 14 percent higher than in 1957-59.

The value of farm capital on Central Northeast dairy farms has continued to increase and reached a record high of \$47,900 per farm on January 1, 1965. The increase resulted chiefly from higher land values per acre and higher investment in machinery.

### Eastern Wisconsin, Grade A

Net farm income in 1965 on grade A dairy farms in eastern Wisconsin averaged \$6,265 per farm, 7 percent lower than in 1964, as the slight increase in gross farm income was accompanied by about 5 percent higher operating expenses. Cash receipts in 1965 were more than 4 percent higher than in 1964. Milk sales increased about 3 percent, milk prices rose 7 cents per hundredweight, and livestock sales were up 24 percent. These increases were virtually offset by a decline in net farm production and an increase in cash expenditures.

Net farm production declined 4 percent in 1965. Production of roughage was smaller than in 1964. The small increase in annual milk production was due to somewhat higher output per cow, as the number of cows milked was the same.

Total cash expenditures increased over 5 percent with purchased feed increasing the most--14 percent--and machinery 4 percent. Prices paid for production items increased about 3 percent. The increase was very similar to the change in prices received (table 3).

The value of farm capital on these dairy farms reached a record high of \$75,470 on January 1, 1965, rising \$3,460 from a year earlier. The chief increases were in value of land and machinery.

### Eastern Wisconsin, Grade B

Net farm income on grade B dairy farms in eastern Wisconsin averaged \$3,218 per farm in 1965, 8 percent less than in 1964. Gross farm income was practically the same in both years but operating expenses



Table 2.- Receipts and expenditures, commercial dairy farms, specified locations, 1964 and 1965

Item	Central Northeast dairy		Eastern Wisconsin dairy				Western Wisconsin dairy, Grade B		Southeastern Minnesota dairy-hog	
			Grade A		Grade B					
	1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Total cash receipts.....	14,039	15,051	15,766	16,459	8,358	8,907	8,989	9,786	10,245	11,471
Dairy products.....	12,423	13,302	11,645	12,028	5,895	6,112	6,295	6,685	6,215	6,295
Cattle and calves.....	1,356	1,468	1,958	2,358	1,068	1,246	1,422	1,555	1,218	1,418
Hogs.....	---	---	905	1,079	691	802	673	805	1,434	1,727
Poultry and eggs.....	191	216	---	---	224	223	165	164	383	355
Crops.....	---	---	676	329	174	175	45	124	486	1,012
Other, including Government payments.....	69	65	582	665	306	349	389	453	509	664
Value of perquisites.....	1,010	1,059	1,154	1,227	1,093	1,164	846	894	799	877
Change in inventory of crops and livestock....	-92	-28	174	-508	501	-82	-1,071	213	40	330
Gross farm income.....	14,957	16,082	17,094	17,178	9,952	9,989	8,764	10,893	11,084	12,678
Total cash expenditures.....	10,962	12,089	11,044	11,628	6,511	6,934	5,842	6,365	7,462	7,885
Feed purchased.....	3,884	4,700	1,296	1,472	836	910	745	986	905	892
Livestock expense.....	627	648	740	805	513	555	460	503	486	509
Fertilizer and lime.....	471	504	517	554	324	348	347	371	380	423
Other crop expense.....	376	368	670	656	531	518	505	490	587	574
Machinery.....	3,100	3,252	4,179	4,352	2,424	2,622	2,158	2,306	2,783	3,023
Farm buildings and fences.....	580	605	1,482	1,552	654	706	431	501	873	982
Labor hired.....	786	813	503	517	100	101	291	297	339	345
Taxes.....	877	931	1,296	1,361	845	886	694	697	858	885
Other.....	261	268	356	359	284	288	211	214	251	252
Inventory adjustment, machinery and buildings	-269	-278	-681	-715	-52	-163	-17	-107	-193	-323
Total operating expenses.....	10,693	11,811	10,363	10,913	6,459	6,771	5,825	6,258	7,269	7,562

<sup>1</sup> Preliminary.

Table 3.- Income and related data, commercial dairy farms, specified locations, 1964 and 1965

Item	Central Northeast dairy		Eastern Wisconsin dairy				Western Wisconsin dairy, Grade B		Southeastern Minnesota dairy-hog	
			Grade A		Grade B					
	1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>	1964	1965 <sup>1</sup>
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Net farm income.....	4,264	4,271	6,731	6,265	3,493	3,218	2,939	4,635	3,815	5,116
Charge for capital at current interest rates <sup>2</sup> .....	2,616	2,754	3,960	4,151	2,639	2,794	2,132	2,153	3,168	3,358
Return to operator and family labor.....	1,648	1,517	2,771	2,114	854	424	807	2,482	647	1,758
Return per hour.....	.43	.40	.65	.50	.23	.11	.20	.61	.17	.46
Charge for capital at 4.1 percent interest <sup>3</sup> .....	1,866	1,964	2,952	3,094	1,967	2,083	1,590	1,605	2,362	2,503
Return to operator and family labor.....	2,398	2,307	3,779	3,171	1,526	1,135	1,349	3,030	1,453	2,613
Return per hour.....	.63	.60	.89	.75	.40	.30	.33	.74	.37	.68
Index numbers (1957-59 = 100)										
Net farm production.....	128	128	128	123	125	117	106	122	112	119
Total milk production.....	146	153	140	142	132	132	139	142	135	132
Crop yields per acre.....	99	100	109	105	107	104	81	110	98	112
Total cost per unit of production.....	104	107	105	113	102	112	118	107	114	113
Prices received for products sold.....	95	97	100	103	100	106	99	106	99	107
Prices paid, including wages to hired labor..	106	106	110	113	110	112	111	113	112	113

<sup>1</sup> Preliminary. <sup>2</sup> Represents the current interest rate in effect on Jan. 1, for new loans by the Federal Land Banks in the farmers' respective areas. <sup>3</sup> Represents the average rate paid by farmers on outstanding debts held by the Federal Land Banks in the United States from 1940 to 1960.

Note: Information presented here is on an owner-operator basis primarily for comparability between types of farms. Net farm income is the return to operator and unpaid members of the family for their labor and management on the farm and return to total capital. No allowance has been made for payment of rent, interest, or mortgage.

were nearly 5 percent higher in 1965. Cash receipts were about 7 percent higher with milk sales about 4 percent higher. An 11-cent increase in milk prices and a 16-percent increase in livestock sales were offset by lower farm production and higher cash expenditures.

Farm production declined in 1965 mostly because of poor cropping conditions and reduced yields. Smaller quantities of quality roughage were produced.

Cash expenditures were about 6 percent higher in 1965, with expenditures for purchased feed increasing by 9 percent and for machinery by 8 percent. The index of prices received increased by 6 percent as compared with an increase of only 2 percent for prices paid.

The value of farm capital increased to a record high of \$50,800 per farm on January 1, 1965. This was largely the result of higher land values.

### Western Wisconsin, Grade B

Net farm income on grade B dairy farms in western Wisconsin averaged \$4,635 per farm in 1965, 58 percent more than in 1964. A 24-percent increase in gross farm income was accompanied by a 7-percent rise in operating expenses. Cash receipts were about 9 percent higher with milk sales increasing 6 percent. The latter resulted from an increase of 11 cents per hundredweight for a larger volume of milk sold per farm and most of the remaining increase in cash receipts came from greater livestock sales.

Farm production in 1965 was substantially higher than in 1964, a year when drought reduced production.

Cash expenditures increased 9 percent with feed going up 32 percent and machinery 7 percent. Prices of production items were about 2 percent higher in 1965 than in 1964, which compares with an increase of 7 percent in prices received, due mostly to higher cattle and hog prices.

The value of farm capital on January 1, 1965, was slightly higher than at the beginning of 1964, as a reduction in value of crops on hand offset increases in values of land and machinery.

### Southeast Minnesota, Dairy-Hog

Net farm income on dairy-hog farms in southeastern Minnesota averaged \$5,116 per farm in 1965, the highest of record and 34 percent higher than in 1964. However, net returns in 1964 were only 84 percent of returns in the previous year. A 14-percent increase in gross farm income in 1965 was accompanied by a 4-percent increase in operating expenses. Cash receipts were 12 percent higher with slightly higher milk sales and a 19-percent increase in livestock sales. An increase of 10-cents per hundredweight in milk prices was somewhat offset by a decline in quantity of milk sold. These increases in receipts from milk and livestock sales were augmented by a doubling of crop sales due to a good crop year. Crop yields were 14 percent higher in 1965 and net farm production was 6 percent higher than in 1964. Milk production per cow declined because of low quality roughage from the 1965 crop, and the milking herd was very little larger than in 1964.

Cash expenditures increased 6 percent in 1965 with outlays for

purchased feed declining slightly and those for machinery increasing 9 percent. Prices of production items were slightly higher but prices received were 8 percent higher. Hog prices increased 42 percent.

Value of farm capital increased 6 percent from January 1, 1964, to the same date in 1965. The chief increase was in the value of land. Value of livestock was the only category showing a decline.

## AREAS IN AGGREGATE<sup>1</sup>

In the aggregate, dairy farms in these two major milk-producing regions continued to increase in size. In 1965, average land in farms was 206 acres; cropland harvested, 98 acres. The acreage harvested for small grains declined but that for corn increased, but a smaller proportion of total corn was harvested for silage in 1965 than in 1964 (table 4).

In 1965, net farm income averaged \$4,455 per farm, 10 percent above 1964. Gross farm income increased by about 8 percent. Prices received for products sold were 4 percent higher in 1965 than in 1964 with greater increases in prices of livestock, especially hogs, than in the price of milk.

Farm production showed only a moderate increase in 1965. Both the annual milk production per cow, increasing only a little, and the number of cows milked, showing

practically no increase, were in sharp contrast to the trend in recent years. Crop production improved in 1965 as the drought in western Wisconsin and southeastern Minnesota was relieved.

Total cash expenditures continued to rise in 1965 because of larger quantities of inputs bought and moderate increases in prices paid. A larger than usual increase in quantities of concentrates fed per hundredweight of milk produced and some increase in the price of feed combined to raise expenses for feed. This is the most important item of expenditures in the Central Northeast, but in other areas it is exceeded by outlays for farm machinery.

Total capital per farm increased to \$51,710 on January 1, 1965. The increase was caused chiefly by rising land values and higher value of machinery.

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<sup>1</sup> To describe the organizational and financial changes from year to year on these dairy farms as a group, a system of weights was constructed, using 1959 U.S. Census of Agriculture data. The weights were based on the number of commercial dairy farms in each of the areas represented by each of the five typical dairy farms. These typical commercial dairy farms fall into census economic classes I-IV, which define a minimum total value of farm product sales of \$5,000 per farm. The upper limit on the value of sales per farm is not specified. Economic classes I-IV include about 76 percent of all commercial dairy farms in each of the five areas represented. The number of dairy farms has decreased since 1959, but it is assumed that the decrease has been proportional, exerting little effect on the weights assigned. The weights are: Central Northeast, 39.3; eastern Wisconsin grade B, 18.6; southeastern Minnesota dairy-hog, 16.8; western Wisconsin grade B, 16.3; and eastern Wisconsin grade A, 9.0.



Table 4.- Organization, production, income, and related data, commercial dairy farms for specified locations in the aggregate, 1964 and 1965

Item	Unit	1964		1965 <sup>1</sup>		Item	Unit	1964	1965 <sup>1</sup>
		1964	201	1964	206			1964	206
Land in farm.....	Acre					Total cash receipts.....	Dollar	11,677	12,575
Cropland harvested.....	do.		96		98	Value of perquisites .....	do.	976	1,036
Corn for grain.....	do.	13.4		14.9		Change in inventory of crops and livestock.....	do.	-95	18
Corn for silage.....	do.	13.5		13.5		Gross farm income.....	do.	12,558	13,629
Small grains.....	do.	20.4		19.8		Total cash expenditures.....	do.	8,719	9,449
Hay.....	do.	48.1		49.4		Inventory adjustment, machinery and buildings.....	do.	-212	-275
Crop yields per harvested acre:						Total operating expenses.....	do.	8,507	9,174
Corn for grain.....	Bushel	62.4		69.7		Net cash farm income.....	do.	2,958	3,126
Corn for silage.....	Ton	10.0		11.2		Net farm income.....	do.	4,051	4,455
Oats.....	Bushel	51.2		57.9		Index numbers (1957-59 = 100):			
Hay.....	Ton	2.00		2.03		Net farm production.....	---	121	123
All cattle on farm, Jan. 1.....	Number	44.2		44.8		Total milk production.....	---	140	143
Cows and heifers, 2 years old and over.....	do.	27.8		28.3		Crop yields per acre.....	---	98	105
Average number of cows milked....	do.	26.4		26.5		Total cost per unit of production.	---	108	109
Milk production per cow.....	Pound	9,260		9,400		Prices received for products sold.	---	98	102
Total farm capital, Jan. 1.....	Dollar	49,290		51,710		Prices paid, including wages to hired labor.....	---	109	110
Land and buildings.....	do.	29,560		31,620					
Machinery and equipment.....	do.	7,570		7,900					
Livestock.....	do.	8,060		8,010					
Crops.....	do.	4,100		4,180					
Total labor used.....	Hour	4,390		4,370					
Hired.....	do.	480		480					

<sup>1</sup> Preliminary.



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